

In the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

1. (currently amended) A method for reducing tumor mass comprising the step of administering to an individual suffering from cancer an amount of a Herpes simplex virus (HSV) comprising a modified HSV genome wherein said modification comprises a modification of an inverted repeat region of said HSV genome such that only one $\gamma_134.5$ gene ~~remains intact~~ expresses an active gene product, said amount of HSV being effective to reduce tumor mass.
2. (currently amended) The method of claim 1 wherein the modification of the inverted repeat region of the genome comprises an alteration ~~of a copy of a $\gamma_134.5$ gene which renders that copy of the gene incapable of expressing an active gene product~~ such that the region is rendered incapable of expressing an active gene product from only one copy each of ICP0, ICP4, ORF0, ORF1, and $\gamma_134.5$.
3. (currently amended) The method of claim 2 wherein the ~~alteration~~ modification of the ~~$\gamma_134.5$ gene~~ comprises an insertion of a DNA sequence comprising one or more nucleotides ~~into the coding region or regulatory region of the gene.~~
4. (currently amended) The method of claim 2 wherein the ~~alteration~~ modification of the ~~$\gamma_134.5$ gene~~ comprises a deletion ~~of all or part of the coding region or regulatory region of the gene.~~
5. (currently amended) The method of claim 1, 2, 3, or 4 wherein the modified HSV genome further comprises ~~an alteration in a unique region of the HSV genome~~ deletion of a gene selected from the group consisting of $\alpha 0$, U_L2 , U_L3 , U_L4 , U_L10 , U_L11 , U_L12 , $U_L12.5$, U_L13 , U_L16 , U_L20 , U_L21 , U_L23 , U_L24 , U_L39 , U_L40 , U_L41 , U_L43 , $U_L43.5$, U_L44 , U_L45 , U_L46 , U_L47 , U_L50 , U_L51 , U_L53 , U_L55 , U_L56 , $\alpha 22$, $U_S1.5$, U_S2 , U_S3 , U_S4 , U_S5 , U_S7 , U_S8 , $U_S8.5$, U_S9 , U_S10 , U_S11 , $\alpha 47$, $OrisTU$, and $LATU$.

6. (Original) The method of claims 1, 2, 3, or 4 wherein the cancer is a noncentral nervous system cancer.
7. (Original) The method of claim 1, 2, 3, or 4 wherein the cancer is a central nervous system cancer.
8. (Original) The method of claim 5 wherein the cancer is non-central nervous system cancer.
9. (Original) The method of claim 5 wherein the cancer is a central nervous system cancer.
10. (new) The method of claim 5 wherein the gene is selected from the group consisting of U_L16, U_L24, U_L40, U_L41, U_L55, U_L56, α 22, U_S4, U_S8, U_S11.
11. (new) The method of claim 5 wherein the HSV comprises deletions of U_L24 and U_L56.
12. (new) The method of claim 3 wherein the DNA sequence encodes HSV-2 glycoproteins G, J, D, and I.
13. (new) The method of claim 8 wherein the modified HSV is R7020.
14. (new) The method of claim 9 wherein the modified HSV is R7020.
15. (new) The method of claims 1, 2, 3, or 4 wherein the HSV genome comprises an insertion of an expressible non-natural protein coding sequence under the control of a herpes simplex virus promoter.
16. (new) The method of 2 wherein the modified HSV is administered to the tumor by direct injection.